

Test photograph



3.2 RF output power measurement

A beaker of 1500ml water was placed in the center of the oven. The oven worked at maximum output power for 120 seconds. The temperature of the water before and after this operation was measured and recorded. Redo above test three times and get the average.

Model Number	Test	Temperature before test ()	Temperature after test ()	T ()
NN-SD297	1	9.7	29.2	19.5
	2	9.2	28.6	19.4
	3	9.6	29	19.4
Temp. Rise= (Temperature after test- Temperature before test)/3=15.13				
RF output power=[(4.187 joules/Cal) x (Volume in ml) x (Temp. Rise)] / Time in seconds				
=(4.187x1500x19.433)/120=1017.07W				

The measured output was found to be above 500W. Therefore, in accordance with section 18.305 of subpart C, the measured out-of-band emissions were compared to the 25xSQRT(power/500)[µV/m] @ 300m limit.

Test instrumentation

Name/Model	Number
Programmable AC Power Source CIF-5000FP	979824
Warranty Label testo 106-T1	63236

3.3 Frequency measurement

Following the above test, a beaker of 1500ml water was placed in the center of the oven. The oven worked at maximum power.

3.3.1 Frequency vs Line voltage variation test

The operating frequency was monitored as the input voltage was varied between 80 to 125 percent of the nominal rating. The results of this test are as follows. Line voltage varied from 96Vac to 150Vac.

Model Number	Maximum frequency variation (96~150V/1500ml water load)
NN-SD297	Horizontal: 2457.05~2487.58MHz
	Vertical: 2454.64~2498.02MHz

3.3.2 Frequency vs Lode variation test

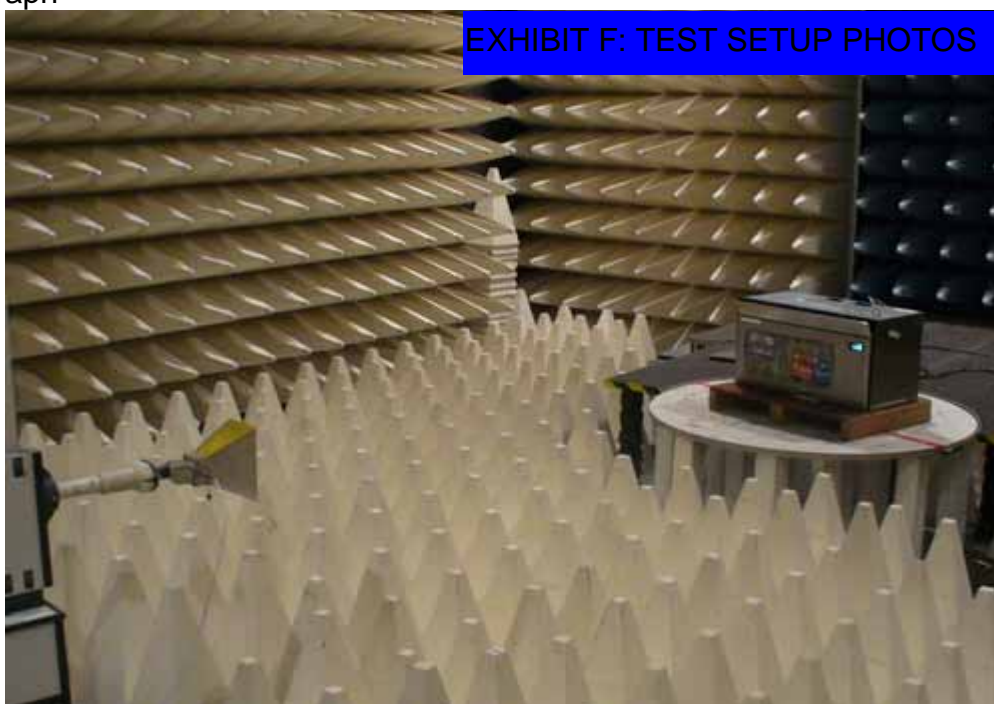
Initial load: 1500ml. Load at completion of test: 300ml.

Model Number	Maximum frequency variation (1500~300ml water load/ 120V)
NN-SD297	Horizontal: 2454.64~2490.38MHz
	Vertical: 2459.93~2490.22MHz

Test instrumentation

Name/Model	Number
Double-Ridged Waveguide Horn Antenna HF 906	容-001-04
Spectrum Analyzer R3162	容-001-33

Test photograph

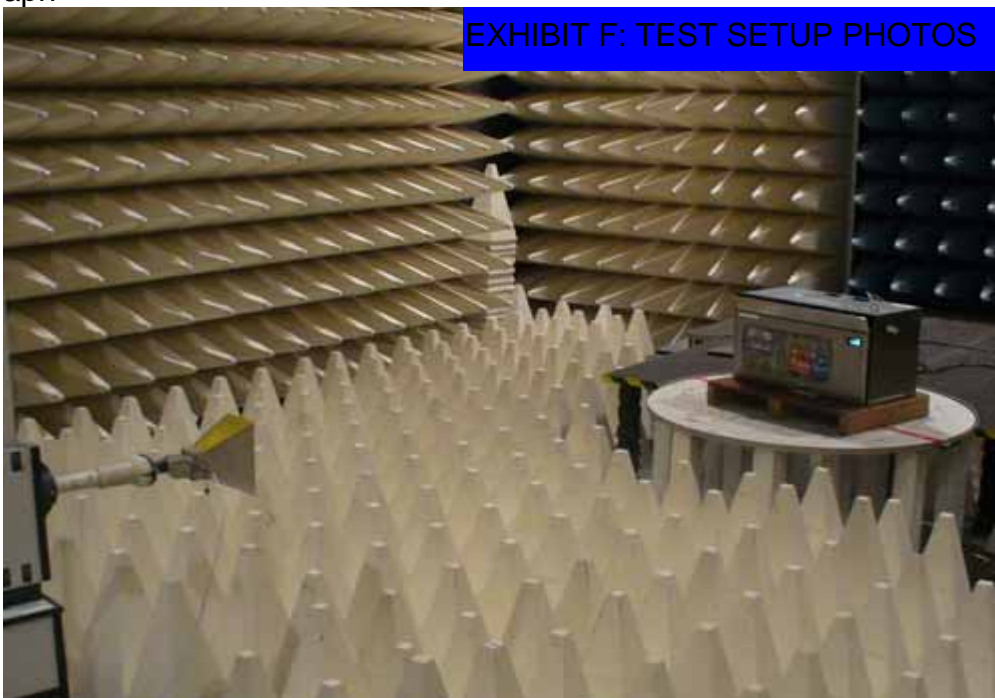


3nd.Harmonic (1050mlcorner)	7357.3	54.84	5.520774393	Vertical	35.66	30.13922561
3nd.Harmonic (1050mlcorner)	7346.9	56.08	6.367955209	Horizontal	35.66	29.29204479
3nd.Harmonic (450mlcentre)	7352.1	55.31	5.827737748	Vertical	35.66	29.83226225
3nd.Harmonic (450mlcentre)	7350.2	56.44	6.637430704	Horizontal	35.66	29.0225693
3nd.Harmonic (450mlcorner)	7353.4	54.98	5.61047976	Vertical	35.66	30.04952024
3nd.Harmonic (450mlcorner)	7351.2	55.97	6.287818541	Horizontal	35.66	29.37218146
4th.Harmonic (1050mlcentre)	9822.4	57.87	7.825282051	Vertical	35.66	27.83471795
4th.Harmonic (1050mlcentre)	9834.4	54.93	5.578276021	Horizontal	35.66	30.08172398
5th.Harmonic (1050mlcentre)	12280.8	57.36	7.379042301	Horizontal	35.66	28.2809577
5th.Harmonic (1050mlcentre)	12291.3	56.73	6.862778784	Vertical	35.66	28.79722122

Test instrumentation

Name/Model	Number
EMI Test Receiver ESI 26	容-001-01
Double-Ridged Waveguide Horn Antenna HF 906	容-001-04

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3.5 Safety check

Model No.: NN-SD297	
At 1050ml water load was placed in the center of the oven. The temperature of the water is 20 degree. The oven worked at maximum power. The radiation emission was moved at 2.5cm/s around the oven.	
Safety check	Left side: 0.0263mW/cm ² Front side: 0.0663mW/cm ² Top side: 0.0203mW/cm ² Right side: 0.0156mW/cm ² Back side: 0.0128mW/cm ² Maximum: Front side: 0.0663mW/cm ²

Test instrumentation

Name/Model	Number
E-Filed Sensor FMR-300	2244/31

Test photograph



Test instrumentation

Name/Model	Number
EMI TEST RECEIVER ESCS 30	容-003-01
ARTIFICIAL MAINS NETWORK ESH2Z5	容-003-05

Test photograph



Remark: /

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